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## FACSIMILE

MAIN OFFICE

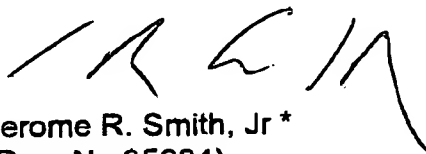
Date: October 8, 1998  
To: Examiner Eileen Morgan - Art Unit: 3723  
From: Jerome R. Smith, Jr.  
Our Ref.: M-3417-1C US (743-US1)  
Subject: US Patent Application Serial No: 09/047,944, Entitled: Apparatus For Optical Inspection Of Wafers During Polishing  
Fax No.: 013 1 703 305 9835  
# of Pages: 3 (including this one)

### Message:

Dear Examiner Morgan:

Please find enclosed Proposed Claims in advance of our interview for Wednesday October 14, 1998 at 3:00 pm, at the USPTO.

Yours sincerely,



Jerome R. Smith, Jr \*  
(Reg. No 35684)

\* admitted in Minnesota and Illinois only

p-700\743\us1\prop-claims- let (dm)

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**PROPOSED CLAIMS-**  
**FOR DISCUSSION PURPOSES ONLY**

**S/N: 09/047,944**

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: M. Finarov, et al.

Examiner: E. Morgan

Serial No: 09/047,944

Group Art Unit: 2854

Filed: March 25, 1998

Attorney Docket No: M-3417-1C US  
(P-743-US1)

Title: APPARATUS FOR OPTICAL INSPECTION OF WAFERS DURING  
POLISHING

Please amend the patent application as follows:

**IN THE CLAIMS:**

Please amend claims 17-19 as below.

17. (Once Amended). A [polisher having the ability to measure the thickness of a top layer of a wafer, the polisher] wafer polishing apparatus comprising:

a polishing unit [which polishes] for polishing a [said] top layer of a wafer in the presence of a liquid;

an optical measurement station in communication with [, mounted within said polisher but apart from] said polishing unit; and

means [to move] for moving said wafer from said polishing unit to said optical measurement station, while said wafer is still wet;

[wherein] said optical measurement station [comprises] comprising;

a liquid holding unit for receiving said wafer, <sup>said holding unit</sup> having a [window in a] bottom surface, and at least a portion of said bottom surface formed by a window, <sup>wherein said top layer of wafer face is viewable through window</sup> [thereof and holding liquid therein which receives said wafer]; and

an optical thickness measuring unit in operative communication with said liquid holding unit, said optical thickness measuring unit for measuring [located

on a non-liquid side of said window which measures] the thickness of said top layer of said wafer through said window while said wafer is [immersed] in said liquid holding unit.

In claim 18, at line 1, please delete "A polisher", and replace it with -The apparatus—.

19. (Once Amended). The apparatus [A polisher] according to Claim 17, wherein said optical thickness measuring unit [includes] comprises:  
an illumination optical unit for directing light towards said wafer;  
an imaging unit for imaging said top layer of said wafer;  
a spectrophotometric detector; and  
[separation optics] an optical assembly in operative communication with said imaging unit and said spectrophotometric detector for providing light reflected from said wafer separately to said imaging unit and to said spectrophotometric detector, the [separation optics] optical assembly comprising, an objective lens, a pinhole mirror and first and second relay lenses, wherein said second relay lens focuses the light passing through said pinhole mirror onto said spectrophotometric detector and wherein said second relay lens focuses the light reflected from said pinhole mirror onto said imaging unit.

**PROPOSED CLAIMS-**  
**FOR DISCUSSION PURPOSES ONLY**

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